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SYNONYMY OF VARIOUS DIPLOPODS

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The following notes on the synonymy of diplopods, principally of the United States, are presented at this time as much delay might occur if their publication was deferred until revisionary or other systematic papers on their respective groups could be prepared and published.

Family *CAMBALIDAE*Genus *Hypocambala* Silvestri

Abh. u. Ber. K. Zool. u. Anthr.-Ethn. Mus. Dresden, Bd. 6, N. 9, P. 11,
Taf. 2, pp. 59-62; 1897.

Agastrophus Attems, Zool. Jahrb., Syst. 13, p. 151; 1900.

Trichonannolene Chamberlin, Ent. News, 33: 85-86; 1922.

Hypocambala helleri Silvestri

Hypocambala helleri Silvestri, *loc. cit.*

Trichonannolene guiananus Chamberlin, *loc. cit.*

There can be no question in placing *Trichonannolene* as a synonym of Silvestri's genus, as comparison of Chamberlin's figure with that of Silvestri's in Pac. Ent. Surv., Publ. 8, Art. 1, p. 9, 1935, will show. Also it seems that *T. guiananus* is a synonym of *H. helleri*, as the gonopods are almost identical and the number of ocelli, a somewhat variable character, appears to be the only basis on which two species could be maintained.

Family *SPIROBOLIDAE*Genus *Hiltonius* Chamberlin

Proc. Biol. Soc. Wash., 31: 166; 1918.

Hiltonius hebes (Bollman)

Spirobolus hebes Bollman, Ann. N. Y. Acad. Sci., 4: 30; 1887.

Tylobolus hebes Cook, Myr. N. W. North Amer., Harriman Alaska Exped.,
8: 66; 1904.

Hiltonius balboanus Chamberlin, Bull. Univ. Utah, 31(11): 10; 1941.

Although neither of the original pair of types of Bollman's *Spirobolus hebes* has been examined, numerous specimens collected at San Diego, the type locality, and Chula Vista, California, have been identified as that species on the basis of his description.

Chamberlin's description and illustration of *H. balboanus*, collected at San Diego, indicate that it is synonymous with Bollman's *hebes*.

In erecting the genus *Tylobolus*, Cook, who found only the female of Bollman's two type specimens in the U. S. National Museum collection, thought that the species undoubtedly was congeneric with *Tylobolus deses*, the genotype. However, study of male topotypes of *hebes* indicates that it should be associated with the species of the genus *Hiltonius*.

Genus *Spirostrophus* Saussure & Zehntner

Grandidier, Madagascar, p. 150; 1902.

Glosselus Cook, Proc. U. S. Nat. Mus., 40: 163; 1911.

Cairibolus Chamberlin, Bull. Mus. Comp. Zool., 62: 209; 1918.

Litobolus Chamberlin, Proc. Acad. Nat. Sci. Phil., 99: 47; 1947.

Spirostrophus naresi (Pocock)

Spirobolus naresii Pocock, Ann. Mag. Nat. Hist., Ser. 6, 11: 252; 1893.

Trigoniulus naresii Brolemann, Mem. Zool. Soc. Fr., 13: 94; 1900.

Spirobolus (*Spirostrophus*) *naresi* Sauss. & Zehnt., *loc. cit.*

Spirostrophus naresii Attems, Voeltzkows Reise Ostafrika, 3: 99; 1910.

Glosselus musarum Cook, *loc. cit.*, p. 165.

Glosselus naresii Cook, *loc. cit.*, p. 166.

Trigoniulus remotus Chamberlin, Bull. Mus. Comp. Zool., 62: 212; 1918.

Spirostrophus remotus Chamberlin, Proc. U. S. Nat. Mus., 61: 14; 1922.

Litobolus hanevavus Chamberlin, Proc. Acad. Nat. Sci. Phila., 99: 49; 1947.

Specimens collected by Loomis in 1937 at Cairo and Guapiles, Costa Rica, have been identified as *naresi* and it is believed that *Glosselus musarum* (the types of which came from a locality between these two adjacent small towns) also is *naresi*, as the original description does not preclude this disposition.

It is strongly suspected that *Cairibolus antonianus* Chamberlin, the type of his genus cited above, is a synonym of *naresi* but neither his type or paratype specimens have been examined.

In addition to being known from a number of tropical countries of both hemispheres, *naresi* has been reported from at least six of the Marquesas Islands, including Fatuhiva whence came the specimens described by Chamberlin as *Litobolus hanevavus*—obviously a synonym of *naresi*.

Family *XYSTODESMIDAE*

Genus *Mimuloria* Chamberlin

Ent. News, 39: 155; 1928.

Mimuloria georgiana (Bollman)

Fontaria georgiana Bollman, Proc. U. S. Nat. Mus., 11: 344-45; 1888.

Mimuloria ducilla Chamberlin, Bull. Univ. Utah, 30(2): 7; 1939.

Dynoria parvior Chamberlin, Proc. Biol. Soc. Wash., 60: 10; 1947.

After examination of Bollman's types of *F. georgiana* in the U. S. National Museum, Loomis pointed out¹ that *M. ducilla* was synonymous. Chamberlin's *Dynoria parvior* has been assigned to the wrong genus, and must be placed in *Mimuloria*. The coloration given and the illustration of the gonopod of *parvior* show it to be *georgiana*. It is assumed that

the length of 18-19 mm. given for *parvior* is for greatly telescoped preserved specimens, as no xystodesmids are recalled that are so disproportionately short in comparison with a width of 7 mm. Broken specimens of *georgiana* collected in 1940 at Pelham, Alabama, by Clarence and Marie Goodnight measure up to 9 mm. in width, and specimens reported by Loomis¹ ranged from 6 to more than 8 mm. The gonopods of these specimens exhibited variations approximating the slight differences shown in Chamberlin's illustrations of *ducilla* and *parvior*.

Genus *Nannaria* Chamberlin

Psyche, 25: 124; 1918.

Nannaria ohionis, new name

Fontaria castanea Williams and Hefner, Bull. Ohio Biol. Survey, No. 18, p. 106; 1928 (*nec Polydesmus castaneus* McNeill, 1887).

The gonopod of *Fontaria castanea* figured by Williams and Hefner (*op. cit.*, fig. 9b) does not suggest conspecificity of their form with the *castanea* of McNeill.² Actually, it is representative of an unnamed form of *Nannaria*, and is distinctive in the subterminal tooth on the mesial process. No locality is given other than that implied by inclusion of the species as a member of the Ohio fauna.

Nannaria terricola (Williams and Hefner)

Fontaria terricola Williams and Hefner, Bull. Ohio Biol. Survey, No. 18, pp. 106-07, fig. 9c; 1928.

The size and color of this species, as stated by the describers, as well as the nature of the gonopods, necessitates the above generic placement.

Genus *Pachydesmus* Cook

Ann. N. Y. Acad. Sci., 9: 5, 1895.

Pachydesmus clarus (Chamberlin)

Fontaria clara Chamberlin, Ann. Ent. Soc. Amer. 11: 372; 1918.

Pachydesmus kisatchinsis Chamberlin, Bull. Univ. Utah, 32(8): 4; 1942.

Since Chamberlin did not illustrate the gonopods of his *F. clara*, it was not until a paratype male in the collection of the Museum of Comparative Zoology was examined that it became evident the species should have been assigned to the genus *Pachydesmus*. The comparison of drawings of the gonopods of the paratype with that used to illustrate *P. kisatchinsis* shows that but a single species is involved with the older name taking priority.

Genus *Zinaria* Chamberlin

Bull. Univ. Utah, 30(2): 4; 1939.

Zinaria brunnea (Bollman)

Fontaria virginienis brunnea Bollman, Amer. Nat., 21: 82; 1887.

Zinaria urbana Chamberlin, Bull. Univ. Utah, 30 (2): 5; 1939.

Zinaria iowa Chamberlin, Can. Entom., 74: 16; 1942.

¹Bull. Mus. Comp. Zool., 92 (7): 402; 1943.

²Proc. U. S. Nat. Mus., 10: 329; 1887.

The gonopods of one of Bollman's specimens of *brunnea* in the U. S. National Museum have been drawn. The original description of the species gives 25 mm. as the length, thus the length of 29 mm. given by Chamberlin for *urbana* does not justify the maintenance of that species as distinct from *brunnea*, especially since the gonopods are apparently identical. *Z. iowa*, as described and figured, differs in no particulars from *brunnea*.

Family *POLYDESMIDAE*

Genus *Dixidesmus* Chamberlin

Bull. Univ. Utah, 34(6): 18-19; 1943.

Dixidesmus branneri (Bollman)

Polydesmus branneri Bollman, Proc. U. S. Nat. Mus., 10: 620-21; 1887.

Polydesmus conlatus Chamberlin, Proc. Biol. Soc. Wash., 56: 36; 1943.

Dixidesmus christianus Chamberlin, Proc. Biol. Soc. Wash. 59: 142; 1946.

Comparison of Chamberlin's drawings and descriptions of *conlatus* and *christianus* with those given by Loomis³ for *branneri*, as well as with specimens of the latter necessitates the above synonymy. *P. conlatus*, described from the Great Smoky Mountains, is typical *branneri*, and it is felt that *D. christianus* (from southern Mississippi) is based on minor differences in the male gonopods which represent only individual variation of a sort to be noted elsewhere in series of *branneri* from the southern Appalachians.

Family *STIODESMIDAE*

Genus *Heteropente* Loomis

Bull. Mus. Comp. Zool., 75(9): 360-61; 1933.

Heteropente planifrons Loomis

Heteropente planifrons Loomis, *loc. cit.*

Styraxodesmus cubensis Chamberlin, Proc. Acad. Nat. Sci. Phila., 99: 21-22; 1947.

Similarities of the description and figure of *Styraxodesmus cubensis* with the description and figure of *Heteropente planifrons* led to an examination of the type specimen of the former⁴ when it was found that carinal pores are present on segments 5, 7, 10, 13, and 16. Therefore, the species must be removed from *Styraxodesmus* (pore formula 5, 10, 13, 16) and placed under *Heteropente*. Furthermore, *cubensis* is a synonym of *H. planifrons*.

³Bull. Mus. Comp. Zool., 92 (7): 405; fig. 16; 1943.

⁴Acad. Nat. Sci. Phila., Type No. 9942, examined through the courtesy of Dr. J. A. G. Rehn.